January 21, 2004

The Honorable Carl R. Johnson, Chairman
Environment Committee
Room 104, Legislative Office Building
Concord, NH 03301

Re: Senate Bill 205-FN, authorizing the state to accept title of the dam and dikes at Smith Pond, Enfield, New Hampshire

Dear Chairman Johnson:

Thank you for the opportunity to comment on SB 205-FN**,** which authorizes the state to accept title to the dam and dikes at Smith Pond in Enfield, provided certain conditions are met.

The state may acquire and maintain any dam that the legislature determines to be in the public interest. Under RSA 482:93, the Legislative Dam Management Review Committee is responsible for researching each proposal for the state to acquire a dam and then providing its recommendation to the appropriate standing committees of the House and Senate prior to final consideration of such legislation. This bill was considered by the Legislative Dam Management Review Committee at its meeting on January 14, 2004. At that meeting, the committee considered a proposed amendment to the bill, which would establish a trust fund to finance the costs for annual operation and maintenance as well as future repair and reconstruction of the dam. The trust would be funded by sources other than state, county or local funds. The bill also conditions the state's acquisition of the dam on the Department of Environmental Services (DES) finding that the dam and dikes are in a reasonable and acceptable state of repair. Under these conditions, DES is willing to accept ownership of the dam.

Smith Pond Dam is located at the headwaters of an unnamed tributary to Mascoma Lake. Smith Pond has an area of approximately 68 acres, with an average depth of approximately 6.5 feet and a maximum depth of approximately 35 feet. The dam was constructed in 1838 by the South Family of the Enfield Shakers, at the outlet of a natural lake called Lily Pond, for waterpower and water supply. As part of the construction, the Shakers built two low earth dikes east of the dam and two dikes west of the dam to contain the pond. They also constructed a six-foot-wide diversion channel more than two miles long to convey the water from the pond to their village.

The former New Hampshire Water Resources Board determined that the natural lake, which was impounded by the construction of Smith Pond Dam, was actually three small ponds, each less than 10 acres in size. As such, Smith Pond is not currently a state-owned public water as defined by RSA 271:20 I. However, under the bill the state will receive a conservation easement to the entire area of the pond at full level, which will provide the public rights of access to the waters of the pond for recreation.

The watershed above Smith Pond is steep and heavily wooded. The shoreline of the pond is undeveloped, and approximately half of it, on the opposite end of the pond from the dam, is part of the 4,200–acre Enfield Wildlife Management Area owned by New Hampshire Fish and Game Department (NHFG). The conservation easements that NHFG would receive under the bill could improve access to portions of the Enfield Wildlife Management Area and improve public access to the pond.

As additional background on the environmental setting of the site:

- According to NHFG, the pond provides for a warmwater fishery, with common white sucker, chain pickerel, yellow perch, brown bullhead, and pumpkinseed sunfish as the predominant species. The pond was last stocked by NHFG in 1953 with smallmouth bass, and a sustaining population may have been established. It is also likely that largemouth bass may have been introduced to the pond by anglers.

- The Loon Preservation Committee of the Audubon Society of New Hampshire has indicated that, because of its remote location, the pond is an established and very productive territory for loons, with occupation and nesting each year.

- The DES Biology Bureau last monitored the pond in 1988. At that time, the pond had an abundance of aquatic plants, but a secchi disk could be observed to a depth of 24 feet, indicating a relatively high degree of clarity. The monitoring report indicates that osprey and kingfishers were observed on the pond during the monitoring event.

The dam is an earthen embankment with a dry masonry upstream face, which has a crudely constructed concrete facing, and a dry masonry wall on the downstream side. The dam is approximately 11 feet high and 150 feet long, and the average width of the crest is approximately 18 feet. The dam contains a concrete spillway channel, which consists of a 4.7-foot-wide by 1.1-foot-high stoplog structure constructed through the top of the dam. A low-level conduit passes through the dam, but the gate that covers the upstream opening is inoperable.

The dam is classified as a Class B Significant Hazard Dam. DES performed a computer analysis of the flooding that would occur due to failure of the dam. The computed inundation area from a dam failure flood includes several homes and condominiums. In addition, the analysis indicates that Route 4A could be overtopped by approximately two feet.

The dam and dikes are in a state of disrepair. The upstream concrete face of the dam has deteriorated, and the crest of the dam is irregular with evidence of settlement along the upstream, concrete-capped, masonry walls. The low level gate is inoperable, but leaks to the point where the water level of the impoundment cannot be maintained during dry weather. There is seepage, some of which is significant in terms of flow, at the toe of one of the west dikes and one of the east dikes, and brush and trees are growing on all the dikes. The east dike that is seeping is on

NHFG property. During a site visit to the dam and dikes in December 2003, the seepage at the toe of that dike was observed to be flowing at a rate that threatened the stability of the dike. Immediately after that observation, DES's Dam Maintenance Crew was sent to the site to implement measures to lower the pond level. As a result of those actions, the pond level has been lowered approximately 1.5 feet and the seepage has been reduced.

In 1998, DES issued an Administrative Order to the last known owner of the dam, the Enfield Shaker Limited Partnership, at its last known address requiring that these deficiencies be corrected within the year. However, the Partnership is no longer in existence, the Administrative Order was returned as undeliverable, and the deficiencies remain. Since then, DES has made plans to remove the orphaned dam to eliminate any possible threat to public safety. The current owners of the property adjacent to the dam and on which the dam and dikes are located, acquired the property in 1998. Ownership of the dam itself, however, may be in dispute. The property on which the dam is located was sold several times between the time the Enfield Shaker Limited Partnership was last known to own it and the time it was acquired by the current owners. A quiet title action is needed to clear title to the dam.

Under the bill, DES would acquire the dam on the condition that DES finds the dam and dikes to be in a reasonable and acceptable state of repair, which would mean that all outstanding deficiencies would be corrected at no cost to the state. In addition, a proposed amendment to the bill that was presented to the Legislative Dam Management Review Committee would establish an interest-bearing trust fund, to be funded from sources other than state funds, to finance the annual cost for DES to perform routine operation and maintenance of Smith Pond Dam, as well as future repairs. Under these conditions, the bill will provide a means to correct the deficiencies in the dam that currently pose a serious threat to life and property downstream, preserve this ecologically and historically significant site, and provide public access to it, all at no cost to the state.

Thank you for this opportunity to comment on this bill. Please call either me at 271-3503 or Jim Gallagher at 271-1961 if you have any questions or need additional information.

Very truly yours,

Michael P. Nolin
Commissioner

cc: Senator Clifton C. Below
Representative Nancy M. Scovner
Representative Ralph L. Akins